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Role of radiolabeled leukocyte scintigraphy in management of patients with a suspicion of prosthetic valve endocarditis

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Objective: In patients with a suspicion of prosthetic valve endocarditis (PVE), detection of perivalvular infection can be difficult based only on echocardiography, but has an important impact in guiding surgical indications. The aim of this retrospective study was to test the interest of leukocyte scintigraphy (LS) for detection of perivalvular infection in patients with suspicion of non-complicated PVE.

Methods: LS was performed in 42 patients admitted for suspicion of PVE. Results of LS were classified as positive, with either intense or mild accumulation of radiolabeled leukocytes in the cardiac area, or negative. Macroscopical aspects and bacteriology were obtained from patients who underwent cardiac surgery (n=10). Clinical outcome was collected in patients treated medically (n=32).

Results: Among patients with an intense signal with LS who underwent surgery (n=6), 5 had an abscess confirmed during intervention, and 1, post-operatively. Patients with an intense accumulation of radiolabeled leukocytes with scintigraphy and treated medically (n=3) had a poor outcome: death (n=1); prosthetic valve dehiscence (n=1); recurrent endocarditis (n=1). Among patients with a mild activity with LS (n=5), one patient developed a large prosthetic valve dehiscence during follow-up. The 4 remaining patients were treated medically and did not present any recurrent endocarditis after a median follow-up of 14 months. No abscess was detected in patients with negative LS who underwent surgery (n=4). Among patients with negative LS treated medically (n=24), none presented recurrent endocarditis after a mean follow-up of 15±16 months. In total, LS helped to identify perivalvular infection or abscesses in 12 out of 42 patients (29%).

Conclusion: This retrospective study suggests that LS is useful for identification of perivalvular infection and could help in guiding surgical indications in patients with suspicion of PVE.

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Native valve infective endocarditis in a tertiary care center in a Tunisian context: clinical aspects and predictors events

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Background: Despite significant progress made in diagnostic and therapeutic modalities, infective endocarditis (IE) remains a serious affection associated with considerable mortality and morbidity.

Aim: To describe the epidemiological and clinical aspects of native valve infective endocarditis (IE) in a Tunisian high-volume tertiary care center and to identify the predictors of outcome.

Methods and results: Demographic, clinical, laboratory, and echocardiographic characteristics were examined in 176 patients who fulfilled the modified Duke criteria for native valve IE between January 1993 and December 2008. Logistic regression analysis was used to identify prognostic factors for death. Mean age was 36.1±7.5 years. Diagnosis was definite in 85% of cases. Median time to diagnosis was 19 days. Rheumatic heart disease (RHD) was the predominant (47%) underlying heart condition. Mitral valve location was the most frequent seat of IE (37.7%). One or more vegetations were detected in more than 86.8% of cases. The median size of vegetation was >15 mm in 26% of cases. In 84 cases (48.5%), cultures remained negative. Serology was positive in 16 cases, and in 4 cases leaflet culture identified the agent. Causative microorganisms were mainly Staphylococci (n=42 (24.2%)), including 8 coagulase-negative Staphylococcus, and Streptococci (n=32). Overall mortality was 18.6%. On multivariate analysis, congestive heart failure (hazard ratio = 5.62, 95% CI 1.32 to 12.54, p=0.008) and large vegetations (>15 mm;

hazard ratio = 4.28, 95% CI 1.91 to 11.69, p=0.004) and neurological complications (hazard ratio = 3.27, 95% CI 1.84 to 9.11, p=0.002) were predictive of in-hospital mortality.

Conclusion: IE remains a serious disease affecting a young population in Tunisia, with RHD as still the most common underlying heart disease, and it is associated with a high mortality.

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Infective endocarditis in Tunisia: a changing profile?

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Background: Since the first description of infective endocarditis (IE), the profile of the disease has evolved continuously with stable incidence.

Objective: To update information gained on the epidemiology profile of IE in a Tunisian high-volume tertiary care center

Patients and methods: This was a descriptive retrospective study of patients treated for IE from January 2001 to December 2010. The patients were divided in two groups according to the date of diagnosis of IE: group 1 (from January 2001 to June 2006) and group 2 (from June 2006 to December 2011). These groups were compared for epidemiologic factors and microbiological differences.

Results: A total of 297 patients admitted during the study period met the modified Duke criteria for IE. The comparison of demographic and microbiological characteristics of IE cases over time between the results of the two groups showed that the annual incidence of IE was stable. The sex incidence rates of IE, in particular, incidence among men was relatively stable across the study period and ranged from 60% in 2001-2006 to 58% in 2006-2010, also there was no significant increase in incidence among women (P=ns). Among incident cases, there was a significant increasing age on presentation, with median age increasing from 39.5 years in 2001-2006 to 51.5 years in 2006-2010 (P=0.05). There were no statistically significant decreases in the proportions of cases affecting the aortic valve (P=0.4) and in IE due to oral streptococci (P= ns) over time. Also there was no significant increase in the incidence of Staphylococcus IE. However, the incidence of IE with negative blood culture has remained stable and continues to be high, nearing 50%.

The rate of rheumatic heart disease as an underlying heart disease was stable over time. However, the standardized incidence of IE has increased in patients with prosthetic valves (P= ns). Overall in-hospital mortality rate decreased from (18.6% in 2001-2006 vs 14.6% in 2006-2010).

Conclusion: This study has shown that the annual incidence of IE is stable in Tunisia. However, profound changes in the epidemiological profile of this disease have not been noted in our population.

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Impact of patent foramen ovale closure in patients with platypnea-orthodoxia syndrome

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Platypnea orthodeoxia syndrome (POS) is a rare condition with right to left shunting through a Patent Foramen Ovale (PFO) that results in oxygen desaturation during postural changes. Few series are available on the functional status after PFO closure. The aim of our study was to describe the impact of PFO closure in this population.

Methods : We retrospectively included 24 consecutive patients with dyspnea related to POS, aged 73.6±9.6 years old (min 52, max 86, 62.5% male) who were